High Contrast Mode

Introduction

For many users, accessibility isn't a preference—it's a necessity. High Contrast Mode is a system-level feature (like Windows High Contrast or macOS's Increase contrast) that enhances visual clarity for users with low vision by increasing the contrast between foreground and background elements.

In the Play+ ecosystem, supporting High Contrast Mode isn't an optional enhancement—it's a default promise . As part of our Inclusive design pillar, Play+ ensures that applications are not only accessible, but also effortless to navigate for users with visual impairments.

How It Works: Zero Effort, Maximum Clarity

High Contrast Mode in Play+ is designed to just work :

- User Enables High Contrast Mode Users activate it in their OS settings (e.g., Windows or macOS).
- Play+ Detects the Setting The theming engine uses CSS media queries such as: @media (prefers-contrast : more) { ... ; } or legacy support like -ms-high-contrast: active for Internet Explorer/Edge.
- A High Contrast Theme Is Applied Automatically A predefined set of high-contrast styles takes over, overriding both the default and dark themes.

The Derivation Logic: Designed for Legibility

To maximize legibility, the Play+ engine applies these key transformations:

- Simplified Colors Decorative and brand colors are removed. Backgrounds become solid black; text becomes white, yellow, or green—matching the user's OS-level palette.
- Borders Become Structural Elements that rely on color contrast now use clear, solid borders for separation: Buttons Form Inputs Cards Navigation Elements
- Shadows and Gradients Removed All shadows, gradients, and other decorative styles are stripped out to remove visual noise.

- Focus Indicators Are Amplified The default focus ring is replaced with a prominent solid outline for easier keyboard navigation.

Implementation Details

CSS Media Query Detection

The high contrast mode is automatically detected using CSS media queries:

Theme File Structure

The high contrast theme is implemented in:

Key Semantic Token Overrides

Component Adaptation

Buttons

- Solid borders replace background colors
- Text becomes high contrast white/yellow
- Focus indicators are prominently displayed

Form Elements

- Input borders become solid white
- Labels maintain high contrast
- Focus states are clearly visible

Cards and Containers

- Backgrounds become solid black
- Borders provide structural separation
- Content remains highly legible

Navigation

- Links use high contrast colors
- Active states are clearly indicated
- Focus navigation is enhanced

Testing High Contrast Mode

Manual Testing

- Enable High Contrast Mode in your OS settings
- Navigate to the High Contrast Test page: /high-contrast-test
- Verify all components adapt appropriately
- Test keyboard navigation and focus indicators

Automated Testing

Use the provided CLI script for quick testing:

Browser Developer Tools

- Open Chrome DevTools
- Go to Rendering tab
- Enable "Emulate a focused page"
- Check "Forced colors" to simulate high contrast

Respecting User Intent: No Overrides Allowed

Unlike our light/dark themes, High Contrast Mode in Play+ is non-configurable . Why?

Because when users enable this setting at the OS level, they are expressing a deliberate accessibility need. Overriding it with brand colors or design embellishments would compromise usability—and violate the spirit of inclusive design.

Developer Checklist

Even though High Contrast Mode is automatic, we recommend manual testing for critical workflows.

- Enable High Contrast Mode on your OS (Windows) or "Increase contrast" (macOS).
- Navigate to /high-contrast-test to see all components in high contrast mode.
- Verify that all interactive elements (buttons, inputs, links) are clearly distinguishable.
- Ensure that color is never the only indicator for statuses or alerts—add icons or text labels.
- Check that the focus indicator is clearly visible when tabbing through the UI.
- Confirm that all text and icons have sufficient contrast and legibility.
- Test with screen readers to ensure proper ARIA support.

- Validate that form validation messages are clearly visible.

Integration with Angular Components

Automatic Detection

The high contrast mode is automatically detected in Angular components:

Component Usage

All Play+ components automatically adapt to high contrast mode:

Browser Support

Browser	Version	Support
Chrome	76+	Full support
Firefox	70+	Full support
Safari	13+	Full support
Edge	79+	Full support
IE	11	Legacy support

Troubleshooting

High Contrast Mode Not Detected

- Ensure the theme CSS file is properly imported
- Check that the media query is correctly formatted
- Verify OS settings are properly configured

Components Not Adapting

- Check that components are using semantic CSS tokens
- Ensure no hardcoded colors are overriding the theme
- Verify the component is properly importing the theme styles

Focus Indicators Not Visible

- Check that focus styles are not being overridden

- Ensure proper CSS specificity for focus states
- Verify that interactive elements are properly focusable

Summary

High Contrast Mode in Play+ is more than a feature—it's a commitment.

By stripping UI down to its clearest, most essential form, Play+ ensures that users with visual challenges can navigate and understand your application with confidence and ease. And because it's automatic , developers don't have to do anything extra to support it—just build, and Play+ takes care of the rest.